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ABSTRACT

This report evaluates the Migrant Student Record Transfer System (MSRTS), a national computer system of records on migrant children, that was voluntarily created in 1969 by state directors of the Migrant Education Program (MEP). As the Federal Government instituted policy changes, MSRTS became the primary source of data for federal and state management reports. Supported by 49 states, MSRTS has information on over 600,000 migrant students, serving as the only national database for migrant education. Over the course of 20 years, however, MSRTS has continued to increase in size, but not in refinement. The cumulative effect of this growth has been a loss of quality in the information collected and a lack of full data-entry participation in MSRTS across states. In short, while becoming a paperwork burden for schools, the practical value of the system to migrant children has been sharply reduced. The National Commission on Migrant Education made the following recommendations to increase the value of MSRTS: (1) significantly reduce the migrant student's MSRTS record to essential data on school enrollment and health; (2) increase direct access of local educators to MSRTS; (3) provide a role for migrant students and their families in MSRTS; (4) conduct a technical assessment of MSRTS with an independent research agency; (5) design data-quality procedures in MSRTS to ensure completeness, accuracy, and security of student information; and (6) require certification from the Secretary of Education that state agencies are complying with the requirements for MSRTS before approving their applications for migrant programs. (LP)

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Keeping Up With Our Nation's Migrant Students

A Report On The Migrant Student Record Transfer System (MSRTS)

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Executive Summary

The Migrant Student Record Transfer System (MSRTS), a state computer system of records on migrant children, was voluntarily created in 1969 by state directors of the Migrant Education Program (MEP). MSRTS was originally designed to expedite the transfer of school records to those directly responsible for educating migrant children: local educators (e.g., teachers, counselors, and nurses).[1] But as the Federal Government instituted policy changes in the administration of the program, the uses for MSRTS information became further extended beyond these local educators. The most significant of these policy changes came in 1974, when Congress allowed the Commissioner of Education to use the MSRTS data base as the source of information for estimating the number of migrant children in each state. MSRTS statistics on migratory children then became--and continue to be--the basis for calculating state allocations for program funds. As a result, MSRTS was no longer simply a record transfer system for exchanging student information across states and local school districts; instead, it had become the primary source of data for management reports.

In fact, as Federal and state governments increased requirements, State Education Agencies (SEAs) began to use MSRTS information to meet statutory and regulatory requirements, rather than create a separate system for collecting information.[2]

During this same period, under the direction of the National Association of State Directors of Migrant Education (NASDME), the individual student record was expanded: test scores, skills list, and other data were added. Since the system was voluntary, states were given flexibility in deciding which information to collect and enter on their migrant students.

Over the course of 20 years, the MSRTS record continued to increase in size, but not in refinement. The increase led to unintended consequences for the local educators who were responsible for collecting and reporting student information. The National Commission on Migrant Education's testimony and research suggest that as the type and amount of information collected on a student expanded and the number of students escalated, MSRTS became a paperwork burden to local schools. In turn, local educators became more reluctant to submit and enter data. Consequently, MSRTS student records became less complete, less accurate, and less up to date. Ultimately, the quality and the timeliness of the information diminished and became less practical to local educators, even as it became more practical to SEAs and the Federal Government.

Findings

This is not to say that MSRTS has not accomplished some of its original goals. In fact, the Commission finds that MSRTS has established:

- a centralized depository of information on over 600,000 migrant students,
- a data-management system supported by a voluntary network of 49 states,
- the first and only national data base serving migrant children, and
- a mechanism for facilitating interstate coordination and cooperation.

Despite these accomplishments, problems arose which diminished MSRTS's potential:

- As the system's uses expanded, it became more concerned with state data-management reporting than with the exchange of student information at the local level. As a result, MSRTS became more responsive to SEAs than to local educators.
- As the data base developed, reporting requirements became more complex and burdensome to local schools. As a result, educators became less responsive and timely in collecting student data.
- Mechanisms for sending and receiving MSRTS information between local schools and the MSRTS data base did not reflect current technological advancements. Instead, MSRTS remained a paper-based system for collecting and reporting information through numerous local, regional, and state administrative levels. Consequently, the flow of information was impeded; local educators used MSRTS as a backup system for validating decisions already made, rather than as a means to expeditiously exchange student information.
- Although 49 states participated in MSRTS, the type of information reported by each state and the format in which information was collected were never standardized across states nor widely integrated into the mainstream classroom.
- Migrant parents and students were not routinely notified of their MSRTS numbers nor trained in the importance and uses of the MSRTS record.

The cumulative effect of these problems was a loss of quality in the information collected and a lack of full data-entry participation in MSRTS across states. As a consequence, a significant number of migrant children now receive little or no direct benefit from the system despite its sophistication and cost. In short, the practical value of the system to migrant children has been sharply reduced.

Summary of Recommendations

The Commission aims to increase the value of MSRTS to the migrant student and family, as well as to local schools responsible for ensuring continuity in a migrant student's education. After reviewing the MSRTS, the Commission made six recommendations for immediate as well as future actions. These recommendations (listed below) are interdependent in that all must be implemented if the efficiency and effectiveness of MSRTS at both the local and classroom level are to be enhanced:

- Significantly reduce the migrant student's MSRTS record to essential data on school enrollment and health status.
- Increase direct access of local educators to MSRTS.
- Provide a role for migrant students and their families in MSRTS.
- Conduct a technical assessment of MSRTS with an independent research agency, such as the National Research Council, and/or federally funded research and development centers (FFRDC).
- Design data-quality procedures in MSRTS to ensure completeness, accuracy, and security of student information.
- The Secretary of Education certify that state agencies are complying with the requirements for the MSRTS before approving their applications for migrant programs, in order to ensure that all essential information on migrant students and only such health and education data (demographic data for enrollment and eligibility, grade placement, previous school attended, secondary credit accrued, immunization data, and life-threatening medical conditions) be transferred in a timely and efficient method. The mandate becomes effective as of September 1993, after carefully evaluating a voluntary program and properly training the users until that date.

The Commission recognizes that some of these issues have been discussed within the migrant education community in the past and that these recommendations may sound familiar to those who have tried to improve MSRTS over the past several years. Our hope is to offer practical approaches and solutions so that the MSRTS can become a valuable tool for migrant students and their families.

The Commission is pleased to discover that the states have already been responsive to the work of the Commission. In fact, some of the recommendations contained in this report are being actively worked on by state directors. The Commission also lauds the past efforts of those who have contributed to the development of MSRTS, particularly NASDME, who attempted to make the transfer of student records a reality. Such state and local initiative must continue if the recommended reforms are to be widely implemented. The Commission is confident that through the joint efforts of Federal, state, and local personnel, MSRTS will realize its potential.

Background

Creation of the Commission

In 1988 the Hawkins-Stafford Act (Public Law 100-297) authorized the establishment of a National Commission on Migrant Education (NCME). At that time Congress mandated that the Commission study the function and effectiveness of the Migrant Student Record Transfer System (MSRTS) and address the following questions:

- What role has MSRTS performed in assisting the migrant population?
- To what degree is it utilized for enhancing the education program at the local level and by the classroom teacher?
- Is it cost-effective?
- How well would such a system work for other mobile populations, like those in the inner cities or in the Department of Defense overseas schools?

The Act also directed the Commission within two years of its establishment to issue a report of its findings.

Approach

To gain information about the operation of MSRTS, the perceptions of its users, and evidence of use at the local level, the Commission took a comprehensive approach. To ensure that its perspective was broad based, the Commission relied upon many sources of information, including:

- existing research reports,
- NCME-contracted investigations,
- MSRTS computer-generated reports,
- public testimony,
- written correspondence, and
- discussions with concerned members of the public.

Responses to the Commission's Mandate

Until major improvements are made in the current MSRTS system, the Commission cannot recommend using a similar system for other populations nor speculate on how a system such as MSRTS can be applied to other mobile populations. Instead, the Commission recommends that the MSRTS prove itself before being adapted for other groups.

In examining the system's cost-effectiveness, the Commission was able to establish that the total cost of the contract from 1969 to date is $78.8 million.[3] This figure does not include, however, costs associated with data entry and system maintenance at the state and local levels. For the year 1990 such costs were believed to exceed $9 million.[4] Because these figures are imprecise, the Commission has included in its recommendations a more thorough investigation of the system's cost-effectiveness.

The Commission's remaining mandated questions regarding the system's usefulness to local-level users are addressed in the report's six recommendations

for immediate and future actions. If these proposed modifications to MSRTS are to work, they must all be implemented simultaneously, on a coordinated time line and as quickly as possible. Selective adoption of these proposed reforms by states will only partially enhance the efficiency and effectiveness of MSRTS at the local and classroom level.

History of MSRTS

In 1966 Congress amended Title 1 of the Elementary and Secondary Education Act to establish a separate education program, the Migrant Education Program (MEP), for the children of migratory farm workers. At that time Congress discovered that children of migratory workers exhibited certain needs--needs that warranted the creation of a special program such as MEP because:

> The children of migratory agricultural workers present a unique problem for educators. Migratory workers travel from community to community in order to work. They often settle in a single community for two months or less. Consequently, their children are seldom in school long enough to participate in school activities; some spend only two to six weeks in any one school district during the harvest season.[5]

In many instances, migrant children entered new schools without any documentation of their educational or health history. It was widely believed that educators could better serve these children if basic information on prior schooling was readily available. To address this concern, Congress also included the following provision, which required states:

> ...to coordinate such programs and projects with similar programs and projects in other states, including the transmittal of pertinent information with respect to school records of such children.[6]

By instituting such a provision, Congress underscored the critical importance of transferring school record information, information that would contribute to a smooth transition into a new school environment.

Following enactment of the original MEP legislation, state directors of migrant education met to discuss interstate coordination, including the transfer of school records. At these meetings, they discussed the creation of a national computer system for facilitating the exchange of student information and established a committee to design a format for collecting and reporting school information on migrant students. Since the states had not, by the end of 1968, obtained fiscal support from the Federal Government, they agreed to have a portion of each state's allocated program funds set aside to support a contract for the exchange of student information. Through a competitive bidding process, the Arkansas Department of Education in Little Rock was awarded a contract to support MSRTS. Thus, with only a voluntary agreement from states for MSRTS participation, a uniform system for collecting and reporting migrant student information was launched across the nation in 1969. In the Educational Amendments of 1974, Congress mandated the use of MSRTS (or "other such systems") to determine the numbers of migrant children to be served in each state (PL 93-380, Section 123).

Recommendations

Recommendation One

Significantly reduce the migrant student's MSRTS record to essential data on school enrollment and health status.

Discussion

> Why is so much information requested? Can't the form be simpler and only request the basic information? Of all the different Federal and state grants I work with, this program is the only one that requires so much paperwork.[7]

As a state system of records, MSRTS was accountable to, and accordingly responded to, a wide array of state and local interests. To do so, MSRTS, Little Rock, struggled to accommodate the different--and, at times, conflicting--needs of its multiple users.

Accommodating these requirements caused both continual change and expansion of the type of information collected and reported through MSRTS. Unfortunately, this change and expansion brought:

- an increased paperwork burden to local service providers,[8]
- difficulty in utilizing and interpreting the codes used to enter information, particularly on the health record,[9]
- an inability to determine the degree of accuracy and completeness of the information provided in each student record,[10] and
- a lack of timeliness in the collection and reporting of student information to local educators.[11]

These problems reduced the effectiveness of MSRTS for local educators.

Because it is designed to provide technically specific information on immunizations and chronic and acute health problems, the MSRTS health record should be updated primarily by trained health providers. However, most health providers hired by local MEP projects support large numbers of students, service a number of schools, and are not always available when MSRTS health records require updating.

Consequently, teachers and other non-medical school personnel are frequently left the task of updating the student's MSRTS health record. A school nurse in Pennsylvania explained this situation:

> I think if I were a teacher I would be terribly frustrated if I had to put down a primary health problem according to the present data entry sheet...I would pull my hair out and say, "No, I'm not putting this stuff in" because I would not understand it. It's frustrating. It's time consuming.[12]

The recording, coding, and data entry for health records appear to have become such a daunting task that many migrant health providers--both within schools and within the general health care community--stopped participating in the system.[13]

The decline in the perceived value of the health portion of the MSRTS record is mirrored in the reduced use of the academic portion of the record. There is evidence that most teachers do not rely upon the academic and skills portion of the MSRTS record for instructional placement.[14] According to a 1981 audit, 74 out of 96 local school personnel surveyed did not refer to the MSRTS record.[15]

It also appears that school and MEP project staff have become increasingly overwhelmed by the MSRTS recording requirements. Many have become selective in their data entry, entering only that information which would maintain their funding level. This, in turn, further discouraged more diligent state and local education agencies. Many local MSRTS users are discouraged by the discovery that information on a returning migrant student MSRTS record is often the same information they entered themselves months prior.[16]

Because of this selectivity in entering certain data, the degree of completeness of records across states and local projects varies widely. Audit reviews and research studies document the extent of the problem:

- 47 percent of the 105 records sampled at two California schools lacked any academic record information.[17]
- Local users across the nation report that the information on a student's record is useful and timely only slightly more than half the time.[18]
- Of the 446,000 student records sampled from the MSRTS files, only 125,000 had any health data recorded.[19]
- 58 percent of all student records in MSRTS contained no test data.[20]
- Less than 5 percent of the student records contained pre- and post-test scores which could be used to show the impact of educational treatment.[21]

In addition to problems of incompleteness, there is the problem of accuracy of student information. While there are efforts by states and local schools to check the accuracy of MSRTS data, numerous U.S. Department of Education (ED) audits suggest that inaccuracies continue.[22]

The Commission discovered that errors are made during different stages of collecting, reporting, and processing student information. The following illustrates the type of situations that lead to these errors:

- In transcribing information, a recruiter may accidentally record incomplete or misspelled names. This may lead to the creation of a new student file, prevent a student's former record from being matched with present information, lead to the creation of multiple records on the same student, or erroneously merge records of different students.[23]
- Inaccuracies occur when entering information into MSRTS if the data entry specialist misinterprets handwritten updates, enters typographical mistakes, or enters information in the wrong section of the record. In each of these occurrences, inaccuracies are entered unchecked into the MSRTS data base.[24]

- If delays occur in updating a student's MSRTS record and the student changes school districts, the next school district receives an out-of-date--and, therefore, inaccurate--record of the student.
- If the student record is infrequently updated (such as may occur when the migrant student enrolls in a school district that does not have a MEP project), the record becomes completely outdated.

Because of these problems,[25] it is increasingly difficult for local schools to make decisions about the academic or health status of a student from the MSRTS record. In one educator's words:

> I believe schools would refer to the MSRTS forms more if the school history and personal information sections were more accurate.[26]

Although local educators have rejected MSRTS student records partially because of their inaccuracy, administrators continue to use these records as the basis for producing management reports. However, if the quality of information is questionable on a student-by-student basis, it is also questionable when aggregated at the state or regional level. Unless errors are checked at the local level, management reports produced to assess the needs of students, to determine the impact of programs on students, and, more important, to serve as the basis for the funding level of states, will also be plagued by problems of data quality.

But it is not only inaccuracies that produce frustration for local educators; the myriad of reporting formats does as well. In some instances local educators manually record information on their students for several different data bases, including MSRTS. Thus, local educators are sometimes faced with submitting similar information one way for a school district, another way for a state, and a third way for MSRTS. Furthermore, any change in the reporting format for MSRTS, as well as with other data bases, requires retraining which consumes time local educators otherwise spend with students.

Any expansion and modification of the data base to meet different management requirements of states may serve to further overwhelm and alienate local educators. This also contributes to the accuracy and completeness problems mentioned earlier. To ameliorate this situation, the amount of data collected must be reduced and the reporting format simplified and standardized. Only after these steps are taken can the system begin to be practical to local educators and a benefit to migrant children.

Actions

Immediate

1. SEAs immediately reduce the paperwork burden on local educators.
   a. Limit the components for an MSRTS student record to:
      - a unique student identification number,
      - demographic data for enrollment and eligibility,
      - grade placement,
      - previous school attended,
      - secondary credit accrual information,
      - immunization data, and
      - notations of life-threatening medical conditions (e.g., hemophilia, diabetes).

      The Commission concurs with the results of a survey of state directors conducted by NASDME in 1991, which cited most of these elements as the most helpful in the education of migrant children.

   b. Place priority on updating the MSRTS records of students who are identified as "currently" migratory.[27]
2. In addition, no new reports are put in place until MSRTS is restructured according to the Commission's recommendations. SEAs, working with MSRTS, Little Rock, sharply reduce the number of existing management reports (currently numbering 375). ED, SEAs, and MSRTS, Little Rock, focus on improving the reporting formats so that they are more comprehensible to local-level people.

Future

1. Whenever the MSRTS contract is recompeted, ED solicits input from state directors, technical experts, and users, including migrant as well as mainstream educators (a) to identify pertinent types of information needed by local educators (b) to estimate the cost of resources associated with data processing, and (c) to ascertain the overall paperwork burden to users.
2. ED designs the specifications for MSRTS on the basis of information collected under paragraph 1. Any material expansion of MSRTS beyond this blueprint should only be undertaken with additional input from state directors, technical experts, and users, including migrant as well as mainstream educators.

Recommendation Two

Increase direct access of local educators to MSRTS.

Discussion

When MSRTS was originally established, states instituted centralized systems to enter information. Twenty years ago, this type of "local-to-regional and state-to-MSRTS" network represented the most efficient way of designing data-management systems. However, as computer and other communication technology expanded in the schools, paper and pencil systems for data collection and/or reporting became quickly outdated. New technology such as fax machines increased access of schools to other schools, while the MSRTS toll-free phone lines increased access to MSRTS. However, the paper-based system for entering and reporting MSRTS information was never eliminated, and many regional and state data-entry systems were never reconfigured. Consequently, MSRTS is a student information management system that uses a computer to store and match data but requires several layers of state and regional data-entry specialists to use paper and pencil to collect and report that data.

With such a process, the time lapse between requests for information by a local project and the actual receipt of such information in hard copy can range from 1 to 90 days.[28] The director of the MSRTS center in Little Rock testified that the average is about 20 days.[29]

In many instances, this state-regional hierarchy imposes layers of protracted recording and reporting procedures between the front-line MSRTS users (e.g., teachers, counselors) and the source of the needed data. One project director stated:

> For us to retrieve parts of data the operator entered, e.g., an alphabetical list..., it takes 4 administrators in 4 different geographical locations who write 4 original sets of correspondence with a total of 19 copies (that's 27 pages including 4 file copies) to various individuals from [state] to Little Rock, Arkansas, and 1 1/2 months....[30]

Given this current structure of data transfer, a critical step to increase the effectiveness of MSRTS must be taken: allowing local educators direct access to MSRTS information. Even though the Commission has identified local projects in seven states that have direct electronic access to the MSRTS data base in Little Rock,[31] there may be more. SEA directors report that more and more local project sites are being linked electronically with MSRTS.[32]

At these "direct inquiry" sites, local data-entry specialists (computer terminal operators) are able to query the MSRTS data base on-line and immediately obtain information on migrant students. One project reported the following improvements in efficiency:

- A 70.1 percent reduction in the time required to transfer data to MSRTS, Little Rock;
- A 74.7 percent reduction in cost-per-student transaction to Little Rock; and
- A 1.5 FTE reduction in the clerical staff of the migrant record section.[33]

Recognizing the apparent success of this approach, the Commission strongly recommends the expansion of such pilot projects so that other local educators are provided direct access to the computer system, thereby allowing them to perform some, if not all, of the following functions on a computer terminal:

- student enrollment (e.g., entry of the student into the data base with descriptive information, assignment of an identifying number);
- student withdrawal (i.e., date of withdrawal from a specific school); and
- record update (i.e., changes to any part of an existing record, including new enrollment or health problems).

If this direct access approach is to succeed, local schools must be allowed to establish a data base independent from MSRTS. These local schools would then be able to receive downloads of student information from the mainframe in Little Rock on a daily basis. This would allow local schools to generate records and reports from their own independent data bases.

But this direct access should not only be improved at the local level. MEP directors at the state level need to be able to analyze information from the MSRTS data base without having to wait for the MSRTS mainframe to generate reports. Some states have, in fact, established their own student data bases, which should now be linked directly with MSRTS, Little Rock. Such linkage is technically feasible; what is needed is standard data elements, format, and protocol.[34]

Actions

Immediate

1. ED and states increase electronic exchange of student data between local schools and MSRTS as well as between state information systems and MSRTS.
2. ED establishes standard data elements, format, and protocol to make this exchange of data possible.
3. States allow local educators who do not have computer technology readily available to contact MSRTS, Little Rock, directly through toll-free phone lines and fax.

Future

1. Federal guidelines permitting local educators electronic access to MSRTS are established. ED establishes target dates and the process for implementing direct access.
2. ED amends the MSRTS contract specifications to include guidelines and training for state and local educators on accessing the MSRTS, Little Rock, data base directly.
3. The MSRTS contractor develops a plan to expand direct access to all users; ED approves the plan. The plan describes training strategies, milestones in system modification and options available for electronic communication and gives priority to sites with high concentrations of "currently" migratory students.

Recommendation Three

Provide a role for migrant students and their families in MSRTS.

Discussion

Although many state administrators and local educators working for the MEP appear to be familiar with MSRTS, the Commission found little evidence that migrant students and their parents (the primary beneficiaries of the system) knew about the MSRTS and its potential for ensuring a continuous education. If migrant families are given a more formal role in the MSRTS, the Commission believes that these parents and students would assist local educators in maintaining more current, accurate, and complete student records.

Judging by the level of concern expressed by parents to the Commission about the education of their children, it is clear that parents are willing to make extraordinary sacrifices to support their children. Given the proper training and motivation, parents and students could become actively involved with MSRTS. In particular, MSRTS can help to empower migrant parents and students in the educational process by:

- Providing parents and students with a tool to communicate with new schools in new states.
- Assisting parents in understanding how schools operate and what information is needed by schools to educate students.
- Improving the accuracy and completeness of information recorded in MSRTS by directly involving students and parents in the verification of such information.
- Encouraging parental and student ownership in the information recorded in MSRTS by increasing overall access to and knowledge of MSRTS and its applications.

In the near future, as a result of advancements in communication technology, parents and students may become the primary vehicle for transferring and updating student information. MSRTS can make available to students and parents portable electronic records--such as student enrollment cards, cards with memory, or computer diskettes. Such portable electronic records have proven successful with migrant parents in the past and are currently in use in some social service programs.[35]

The first of these technologies, a student enrollment card (similar to the modern-day credit card), would facilitate the update of information on migrant children as they move. Upon arriving in a new community, the students or parents would present this card to school officials, who would then be able to rapidly identify the students as eligible for migrant services and enroll and access students' MSRTS records with greater ease and improved accuracy. Another more sophisticated version of this card contains a computer chip which has memory so that student information could be retrieved, records could be updated, and information could be transferred to MSRTS directly from the local schools through electronic means. A more cost-effective technology may be a computer data disk, which, like the electronic card, would be updated by the local school.

These electronic cards and disks would not only be convenient but would also eliminate redundancy in data entry currently required by the system. As a migrant child moves from school district to school district, updating his or her record would be simply a matter of scanning cards that automatically transmit data to the computer. Under this approach, a significant portion of manual completion of data-entry sheets and data entry would not be required; and the present paperwork burden associated with the system would be significantly reduced.

If action is taken to make these recommendations a reality, MSRTS could move to the forefront of student information management.

Actions

Immediate

1. The SEAs take steps to ensure that students and parents are notified of their MSRTS identification number, the type of information contained in the student record, and the intended purposes.
2. ED reviews MEP regulations governing parental involvement to ensure that provisions for involving parents and students in MSRTS are clearly stated. Such regulations require SEAs to train parents in (a) verifying information, (b) transporting information, and (c) informing parents of their rights associated with access to such information.

Future

1. ED and states encourage the piloting of different portable electronic records that allow parents and students to hand carry their records. These pilots are conducted with technical assistance from the Program Coordination Centers (PCC), who may assist in establishing demonstration models within each stream.
2. To encourage states and local schools to use portable electronic records, ED amends current regulations.
3. To train parents in the use of portable electronic records, ED amends current regulations.
4. ED monitors access to and the efficiency of portable electronic records.

Recommendation Four

Conduct a technical assessment of MSRTS with an independent research agency, such as the National Research Council, and/or federally funded research and development centers (FFRDC).

Discussion

At present, decisions on MSRTS system hardware and software are made through the MSRTS Executive Committee, a standing committee of NASDME. Composed of representatives from ten states, the Committee is appointed annually by the NASDME Executive Committee and includes both state and local representatives. Although experienced in migrant education, committee members are generally not experts in state-of-the-art computer technology or large-scale data bases. And while this form of governance structure was created to ensure broad state representation, it also brought layer upon layer of protracted committee procedures. From a practical standpoint, these procedures made it difficult for MSRTS (1) to respond quickly to the needs of local schools and (2) to integrate the latest technology into the system.

To ensure the technological adequacy and practical effectiveness of the system, both technical expertise and local school experience are needed. Thus, the Commission recommends that an outside technical assessment be undertaken through an organization such as the National Research Council (NRC) and/or FFRDC[36] under the direct supervision of ED. The NRC conducts technical assessments aimed at providing high-level management advice of a strategic nature but does not provide the kind of detailed systems engineering support that would be available from FFRDC. On the other hand, FFRDC can develop rather detailed technical assessments and provide support throughout the entire systems-engineering life cycle. The decision to work with one, or both, of these national organizations will depend on the time and funds available to ED.

The Commission suggests this assessment as a means of improving MSRTS technology overall. The assessment would serve to establish standards for MSRTS design, management, development, and operational decisions and--under the direction of ED--provide guidelines for future revisions and redesign of MSRTS. In this way, the system will continue to enhance its capabilities rather than reduce them.

The Commission recognizes that MSRTS is a state system of records; MSRTS should strive to provide the most efficient and cost-effective service that permits the exchange of student-level information across states and districts. Therefore, Congress should consider opening the bidding on the next competition of this contract to other public- and private-sector groups. By expanding the competition to other qualified agencies, both ED and the SEAs can explore a broader market for obtaining the most effective and efficient system for MSRTS. In fact, by opening the competition to include the private sector, free market response may accelerate technical development of MSRTS; however, the Commission also recognizes that there may be other entities (e.g., nonprofit organizations, universities, corporations) which are capable of administering MSRTS.

Actions

Immediate

ED procures a contract with NRC and/or FFRDC to conduct a technical assessment of MSRTS. Depth of analysis will be determined to a large extent by funding and time available; however, cost-effectiveness considerations will play a major role in the formulation of recommendations for system modifications and redesign.

Future

1. Congress permits the private sector to bid for the MSRTS contract in future competitions. In its deliberations, Congress solicits comments on the following proposed changes to the current MEP statute, 20 USC 2783 (2)(A):

   > The Secretary is also authorized to enter into contracts with state educational agencies **or other public and private organizations** to operate a system for the transfer among state and local educational agencies of migrant student records (including individualized education programs approved under the Education of the Handicapped Act).

   The Commission recognizes that the Congressional members of this Commission will receive additional information and input as part of the Congressional hearings and will need to give full consideration to this input.

2. A technical assessment by NRC and/or FFRDC is conducted, and the results are used to develop MSRTS contract specifications and to monitor MSRTS operations for the 1996 recompetition.

3. To supplement information obtained through routine program reviews, site visits, etc., ED implements a process to systematically solicit feedback from local educators on MSRTS performance.

Recommendation Five

Design data-quality procedures in MSRTS to ensure completeness, accuracy, and security of student information.

Discussion

Even with appropriate, well-defined requirements, a technical system must be monitored and evaluated to ensure that its quality, both in terms of data and service, remains high. The Commission found no established electronic system for checking that accurate information is entered or reported by MSRTS. Instead, what serves to control the quality of the information is a network of data-entry specialists in each state who review and re-review MSRTS student records for thousands of students. Even with this intense use of human resources, inaccuracies appear in MSRTS reports (for example, one-year-old students reported to be in twelfth grade[37]).

Although MSRTS management reports are provided to each state, these reports focus on the number of times information is submitted to and reported by MSRTS rather than on the types and frequency of errors that occur. As a result, incomplete or inaccurate information is entered unchecked in MSRTS. The Commission found that there is a need for software refinements in MSRTS, refinements that would control the quality and completeness of information entered into and reported by MSRTS. With such electronic quality control, the data-entry specialists currently reviewing MSRTS student records could be reallocated to other program areas; and greater uniformity in accuracy could be attained in all states.

Along the same lines, a technical review conducted by the Commission suggests there are no established electronic safeguards to manage the security and privacy of student information within the MSRTS data base.[38] Unfortunately, as local-level access to MSRTS increases, so does the potential for security and privacy problems. It is, therefore, important to develop a coherent plan for establishing and maintaining the security and privacy of student information. Once such a plan is developed, it must be integrated into the technical design and routine management of MSRTS. All MSRTS users (students and local, state, and Federal authorities) must also be fully apprised of their responsibility in maintaining the security of student information, both now as well as in the future, when MSRTS will be redesigned.

As with any automated system, the technological options available to MSRTS vary according to function and cost. An organization's ability to make choices and select an appropriate solution is often curtailed if that organization is burdened with the day-to-day operations of a system. On the other hand, organizations that have no hands-on experience with a particular system may choose options that are inappropriate. Accordingly, the technical assessment requested by the Commission (Recommendation Number Four), along with input from state directors, technical experts, and users, including migrant as well as mainstream educators, should enable ED to design technical standards for accuracy and security.

Consideration should also be given to available MEP resources that could assist in improving and refining MSRTS. Since the Chapter I technical assistance center (TAC) and rural TAC contractors are experienced in collecting and reporting program-impact information, it is reasonable to assume they

could enhance communication between program service providers (states and local MEP staff) and data processors (MSRTS). With its expertise in data collection and interpretation, TAC assistance could be valuable to MEP in redesigning data collection and reporting techniques.

Similarly, since the PCCs provide technical assistance in coordinating programs across and between states, their expertise could greatly enhance the quality of information reported to MSRTS, as well as help MSRTS users analyze MSRTS information.

The Commission believes that through a collaborative working relationship among the different MEP support contractors (MSRTS, PCC, TAC, and rural TACs), a more efficient link between local educators and migrant families can be attained. This linkage should be realized in ways that bring about the efficient and effective use of MSRTS across the local, state, and Federal level.

Actions

Immediate

The MSRTS contractor develops quality-control mechanisms to reduce data processing errors and to increase both accuracy and efficiency. Development of quality-control procedures as well as reporting formats are performed in consultation with SEAs, but only ED is authorized to give approval. Both SEAs and local users understand that ED has the final authority to approve or disapprove contractor activities relative to computer hardware and software, data collection and reporting, and other operations specified by the contract with the Federal Government.

Future

1. After receiving the results of the technical assessment and input from state directors, technical experts, and users, including migrant as well as mainstream educators, ED requires specific quality-control mechanisms and security measures in the MSRTS. These become normal operating procedures for the MSRTS contractor.
2. TAC and rural TAC contractors are directed to assist in the design and implementation of quality-control mechanisms for MSRTS. All Chapter 1 assistance contractors are required to work in cooperation with MEP, PCC, and MSRTS staff in order to ensure that accurate, complete, and timely information is collected and reported through MSRTS to its many users.

Recommendation Six

The Secretary of Education certify that state agencies are complying with the requirements for the MSRTS before approving their applications for migrant programs, in order to ensure that all essential information on migrant students and only such health and education data (demographic data for enrollment and eligibility, grade placement, previous school attended, secondary credit accrued, immunization data, and life-threatening medical conditions) be transferred in a timely and efficient method. The mandate becomes effective as of September 1993, after carefully evaluating a voluntary program and properly training the users until that date.

Discussion

Though current legislation requires SEAs to enter data in MSRTS if they are to receive funding,[39] ED does not specify the minimal amount of "pertinent information" needed to be transferred on a migrant child.[40] Furthermore, although states that receive funds are required to exchange "pertinent information,"[41] neither Congress nor ED has ever designated MSRTS as the actual mechanism for meeting this requirement.

Despite this lack of Federal guidance, 49 states voluntarily enter data on students in MSRTS to meet funding and transfer of information requirements. In fact, NASDME reports that most states have independently established policies that require their local projects to participate in the exchange of information with MSRTS.[42] Nonetheless, lack of clear guidance on a national level has resulted in:

- varying levels of SEA participation in MSRTS, namely, in the types of information to be collected and reported (e.g., some states instruct their local service providers not to report health information);[43]
- variation in the type of resources, training, and monitoring SEAs allocate to MSRTS;
- variation in the degree with which MSRTS student information is used at the local level by MEP staff and the mainstream classroom teacher; and
- variation in the frequency with which student records are updated.[44]

From one perspective, these differences permit each SEA to customize information to meet its particular needs. But this variation has led to serious gaps in information recorded on students. As noted in numerous studies:

> The most limiting factor in the MSRTS is the voluntary nature of the data entry.[45]

If MSRTS is to reach its full potential, that is, successfully transfer essential information on students and provide valid data for Federal funding purposes, there must be accurate and complete data entered regularly on every migrant

student. The critical question is who is accountable for entering student data. Currently, because MEP is a state grant program, the SEA is ultimately responsible for entering such information into the system. This means that local subgrantees are not directly accountable to ED. Although local subgrantees are required by some states to enter data, it is incumbent upon states to enter the data themselves or have a subcontractor do so.

The Commission recognizes that educators are already burdened with time-consuming and sometimes unnecessary paperwork requirements. However, if MSRTS is to be an effective means to transfer vital health and education records on the highly mobile migrant student population, full participation is necessary, as is accurate and complete information. The Commission recognizes that laws alone do not always motivate individuals to perform their job with greater accuracy and efficiency. By the same token, we recognize that the lack of an enforcement mechanism to ensure full participation in MSRTS and to monitor that the data being entered is complete, accurate, and timely has greatly impeded the effectiveness of MSRTS, to the detriment of migrant students. Therefore, we believe that the Secretary of Education, whose responsibility it is to approve applications for migrant programs "only upon a determination that payments will be used for programs and projects... which are designed to meet the special educational needs of migratory children of migratory agricultural workers... **including the transmittal of pertinent information with respect to school records of such children"**[46] [Emphasis added], already has the legal authority to ensure participation in MSRTS and should exercise that authority.

The Commission wants to emphasize, however, that the imposition of performance standards, incentives, and penalties upon SEAs will be completely ineffective unless (1) direct two-way access is permitted, (2) the record is streamlined to a minimum number of data elements, and (3) SEA operating procedures are modified to enhance efficiency and decrease the paperwork burden to local educators. To impose greater standards and penalties relating to full participation in MSRTS without a simpler record and without direct two-way access would only further reduce local educators' time to work directly with migrant students.

Actions

Immediate

ED notifies SEAs that MSRTS is the official vehicle for the transmittal of pertinent information of school records for migratory children in compliance with PL 100-297; and the mandate becomes effective as of September 1993, after carefully evaluating the voluntary program and properly training the users until that date.

Future

1. ED notifies SEAs that, after the implementation of changes in Recommendations One, Two, Four, and Five, full participation in MSRTS will be a requirement for funding. That participation is limited to all essential information on migrant students and only such health and education data (demographic data for enrollment and eligibility, grade placement, previous school attended, secondary credit accrued, immunization data, and life-threatening medical conditions) be transferred in a timely and efficient method, the Secretary of Education certifies that state agencies are complying with the requirements for the MSRTS before approving their applications for migrant programs.
2. State and local educators are trained in using the refined MSRTS system. To facilitate training, other ED-contracted service providers, such as the TACs and the PCCs, are included in the process.

Endnotes

1. *Specifications for a Nation-Wide Migrant Student Record Transfer System*, July 15, 1968.
2. For example, Hawkins-Stafford Amendments of 1988, Public Law 100-297, Section 1014(b) and Section 1202(a)(3) and (6).
3. Letter of Troy Rinker to Commissioner Donna Garner (with enclosures), March 22, 1990.
4. Memorandum for the Commissioners from Carol Pendas Whitten, April 1990; Memorandum of Troy Rinker to State Directors of Migrant Education, October 31, 1990.
5. Conference Report Accompanying. P.L. 89-750, U.S. Code Cong. and Admin. News, 89th Congress (p.3852).
6. P.L. 89-750. This provision is still in the current statute. See 20 USC 2782, Act 142 (p.1394(a)(i)).
7. *Final Report: Data Analysis of MSRTS Utilization Study, 1987-88*. Submitted to the MSRTS Subcommittee on Utilization by Dr. Gerald L. Richardson, Florida Department of Education (p.IE. 3.1).
8. Ellen L. Marks, *Case Studies of the Migrant Education Program*, Policy Studies Associates, Washington, D.C., July 1982 (p.53).
9. For example, see testimony of Elizabeth Miller, Transcript of NCME Hearing, Gettysburg, Pennsylvania, August 7, 1990 (pp.84-86); Written testimony of Raul de la Rosa, NCME Hearing, Bethesda, Maryland, February 14, 1991 (p.41).
10. Exotech Systems Inc., *Evaluation of the Impact of ESEA Title 1 Programs for Migrant Children of Agricultural Workers*, Falls Church, Virginia, January 25, 1974 (pp.23-24); B. Klein, et al, *Comprehensive Summary: Study of the ESEA Title 1 Migrant Education Program*, Research Triangle Institute, North Carolina, March 1981 (pp.120-121).
11. *MSRTS Utilization Study (undated summary)* (p.19); Exotech, Evaluation of the Impact (p.23).
12. Testimony of Elizabeth Miller (pp.84-86).
13. NCME Staff Communications with R. Ryder, National Migrant Resource Program, September 30, 1990.
14. Marks, *Case Studies* (p.53); *MSRTS Utilization Study* (p.27).
15. U.S. Department of Education, Office of the Inspector General, "Report on Review of the Migrant Student Record Transfer System as Administered by the Texas Education Agency," Audit Control No. 06-14001, February 12, 1981 (p.10).
16. For example, see testimony of Elizabeth Miller (p.74); Written testimony of Raul de la Rosa (pp.48-50).
17. U.S. General Accounting Office, "Improvements Needed in the Migrant Education Program," (HRD-79-100), August 23, 1979 (p.12).
18. *MSRTS Utilization Study* (pp.17-19).

19. Robert Vorek, et al., *Synthesis of Available Research and Database on the Migrant Education Program, Vol. II: The Migrant Student Record Transfer System*, Applied Systems Institute, Inc., Washington, D.C., August 1980 (p.45).

20. Ibid (p.33).

21. Ibid.

22. U.S. General Accounting Office, "Improvements Needed In The Migrant Education Program," (HRO-79-100), August 1979, ACN B-177486.

U.S. Department of Health & Human Services, Office of Inspector General, "Report on the Survey of the Migrant Student Record Transfer System," May 1979, ACN 06-90001.

U.S. Department of Health & Human Services, Office of Inspector General, "Review of the Migrant Student Record Transfer System, Administered by the Department of Education, State of Oregon," October 30, 1980, ACN: 10-14000.

U.S. Department of Health & Human Services, Office of Inspector General, "Review of the Migrant Student Record Transfer System, Colorado Department of Education," November 28, 1980, ACN: 08-1400.

U.S. Department of Health, Education and Welfare, Office of Inspector General, "Review of the Migrant Student Record Transfer System as Administered by the Virginia State Department of Education," December 4, 1980, ACN: 03-19550.

U.S. Department of Health & Human Services, Office of Inspector General, "Report on Audit of Migrant Student Record Transfer System, Ohio Department of Education, Worthington, Ohio," January 16, 1981, ACN: 05-14203.

U.S. Department of Education, Office of Inspector General, "Report on Review of the Migrant Student Record Transfer System as Administered by the Texas Education Agency," February 12, 1981, ACN: 06-14001.

U.S. Department of Education, Office of Inspector General, "Review of the Administration of the Migrant Student Record Transfer System Implemented Under Title I of the Elementary and Secondary Education Act," February 23, 1981, ACN: 09-10001.

U.S. Department of Education, Office of Inspector General, "Report on Audit of the Migrant Student Record Transfer System, Operations, and Utilization in the State of Mississippi, January 1, 1978, through June 30, 1980," April 28, 1981, ACN: 04-14009.

U.S. Department of Health & Human Services, Office of Inspector General, "Report on Operation of the Migrant Student Record Transfer System, Florida Department of Education, January 1, 1978, through May 31, 1980," June 1981, ACN: 04-14006.

U.S. Department of Education, Office of Inspector General, "Review of Eligibility of Migrant Children for Which Funds Were Awarded Under Title I of the Elementary and Secondary Education Act for Fiscal Years Ended September 30, 1980, 1981, and 1982," (undated) ACN: 09-20008.

U.S. General Accounting Office, "Analysis of Migration Characteristics of Children Served Under the Migrant Education Program," GAO-HRD-83-40, May 2, 1983, ACN: B-211408.

U.S. Department of Education, Office of Inspector General, "Review of the Migrant Education Program Funded Under Chapter 1 of the Education Consolidation and Improvement Act Administered by the Texas Education Agency, Austin, Texas," December 1987, ACN 09-40004.

23. Frank Pittelli, D. Roche, "A Technical Analysis of the Migrant Student Record Transfer System" (draft), March 31, 1991 (pp.19-20); testimony of F. Pittelli, Official Transcript of NCME Hearing, Bethesda, Maryland, February 14, 1991 (p.260).

24. Testimony of Frank Pittelli, (p.260).

25. An additional problem that cannot be satisfactorily explained at this time was reported by one state official, who found that when student information is processed at Little Rock, discrepancies result. Student data that is printed and mailed to an SEA does not correspond to the information contained on MSRTS tapes or diskettes that are delivered to the same SEA. Communications of Gerald Richardson to NCME Staff, April 12, May 16, June 18, 1991.

26. Communication of Sherry Smith to NCME Staff, March 15, 1991.

27. For the purposes of this report, a "currently" migratory child is defined as one whose parent or guardian is a migratory agricultural worker or a migratory fisher and who moved within the past 12 months from one school district to another to enable the child, the child's parent, guardian, or a member of the child's immediate family to obtain temporary or seasonal employment in an agricultural or fishing activity. "Formerly migratory child means a child who was eligible to be counted and served as a currently migratory child within the past five years, but is not now a currently migratory child," and meets all other eligibility requirements under 34 CFR 201.3.

28. Written Testimony of Raul de la Rosa, NCME Hearing, Bethesda, Maryland, February 14, 1991 (p.30).

29. Testimony of Troy Rinker, Transcript of NCME Hearing, Little Rock, Arkansas, May 7, 1990 (p.27).

30. Letter of Robert Lisenbee to the Commission (with enclosures), August 24, 1990.

31. Direct inquiry pilot projects have so far been identified in California, Florida, Idaho, North Carolina, Michigan, Texas, and Washington.

32. Testimony of Raul de la Rosa (pp.44-45).

33. Letter of Robert Lisenbee.

34. Frank Pittelli, "Toward a Fully Distributed MSRTS," June 4, 1991, NCME staff paper. This paper outlines one of several approaches to upgrading the MSRTS. The concept involves ED establishing standards for data format, data transfer protocol, and data services. The states, using their own capabilities as well as those of private industry, would then be free to develop their own systems using the guidelines and standards set by ED.

35. Successful current projects are described in: *Food and Nutrition*, February 1991, Vol. 20, Nos. 2-3, "Delivering Benefits Electronically."

In 1979, the Migrant Education Recruitment and Identification Techniques (MERIT) Project of the Indiana Migrant Education Program successfully used family identification cards in a project designed to expedite student

record requests to Little Rock and to provide advanced notification of migrant moves to receiving sites. Identification numbers of all students in a family were encoded on the cards using bar codes. The project elicited significant interest and participation from both parents and educators; further, it aided in identifying gaps in MSRTS student records. Communication of Michael Hoffman with NCME staff, June 26, 1991.

36. NRC is the working arm of the National Academy of Science, an independent, non-partisan scientific body established by an Act of Congress in 1864. Its primary function is to serve in an advisory capacity to the Federal Government and agencies upon matters in the areas of science and technology, and to advance the interest of science and technology.

Federally funded research and development centers enjoy a special status under law: they are not-for-profit institutions operating under a special Congressional appropriation, chartered in the public interest, and can enter into noncompetitive contract relationships with Federal and not-for-profit agencies.

37. MSRTS Report IB, "Student Distribution Summary for the Nation" (for the period January 1, 1989, to December 30, 1989), dated February 13, 1990.

38. Testimony of Frank Pittelli (p.320).

39. PL 100-297 Section 1201 (b)(1).

40. In fact, the only provision to maintain minimum information on students in current ED regulations relates to information contained in a Certificate of Eligibility (34 CFR 201.30).

41. PL 100-297 Section 1202 (a)(1).

42. Written testimony of Raul de la Rosa (p.21).

43. Ibid. Appendix: State of Alaska (p.iii).

44. Ibid (pp.34-37).

45. Vorek (p.V).

46. In compliance with PL 100-297.